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**Cc:** Nelson, Walt[Nelson.Walt@epa.gov]  
**From:** Young, David  
**Sent:** Thur 8/6/2015 12:18:57 AM  
**Subject:** Unfinished sulfide manuscript  
[Draft Manusc. Algae-Sulfides-Infauna 09-09-2010.doc](#)  
[Draft Manusc. Tables - Algae,Sulfides,Infauna - 09-09-2010 .doc](#)  
[Figures - Algae-Sulfides-Infauna - 09-08-10.doc](#)  
[Copy of H2S calculator.xls](#)

Ed and Katie,

Sorry to keep missing you. Attached is an unpublished manuscript with a lot of details that may be of scientific use to you. Please use this material as it is useful to you, with the understanding that, now that I am an EPA Guest Worker, I am not participating in any EPA project, but merely engaging in scientific discussion of a subject of mutual scientific interest.

Regarding that January 2015 Sulfides Toxicity workshop at Friday Harbor, the materials I have sent you cover discussions held there. Again, however, note that it is critical to use the same units, either Total Dissolved Sulfides (sum of all three chemical species), or Dissolved H<sub>2</sub>S. The partitioning amongst the three species is critically dependent upon pH, and then Temperature and Salinity. The organizers of the January workshop reported on a year's worth of data that turned out to be worthless - less than worthless - because they did not take chemical speciation - dependent upon pH, T and S - into account (the same mistake I had made years before, on another sulfide toxicity [defunct] project). Check Standard Methods for the conversion algorithm, or ask me to find and send the program Dick Caldwell provided me. Wait, I just found it, with the reference to Std. Methods, and attached it.

Best of Luck - I'd love to follow the science you pursue.

David

WED/PCEB Guest Worker